CHRC
California Hydropower Reform Coalition
2140 Shattuck Avenue, Suite 500
Berkeley, CA 94704
www.calhrc.org
510.644.2900 ext. 105
fax 510.644.4428

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Docket No. 02-IEP-01
Docket Unit, MS-4
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

Via US Mail and email: docket@energy.state.ca.us

RE: 02-IEP-01 – 2003 Integrated Energy Policy Report

On behalf of the California Hydropower Reform Coalition (CHRC), please accept these initial comments on the scope of the California Energy Commission's (CEC or Commission) 2003 Integrated Energy Policy Report (IEPR). The CHRC is an association of over 25 conservation, sportfishing, and recreation organizations working to restore California's rivers by modernizing California's hydroelectric infrastructure. Our members participate in over 20 ongoing hydropower relicensing proceedings before the Federal Energy Regulatory Commission (FERC), and have been active participants in discussions regarding the future of utility hydropower under AB 1890 and its aftermath. We appreciate the opportunity to provide these comments.

The CHRC has previously submitted comments for the CEC's SB 110 Environmental Performance Report (2001) and the 2002-2012 Electricity Outlook Report. Senate Bill 1389 has called for the consolidation of these and other reports into an integrated document that identifies energy supply and demand trends and, among other things, the impacts these trends may have on the state's environment.

Hydropower provides, on average, 15% of California's in-state electricity generating capacity, and accounts for a large portion of electricity imports from the Pacific Northwest. Our primary purpose in this letter is to urge the CEC to specifically consider the unique aspects of hydropower in its electricity supply and impact discussions. Hydropower's unique environmental considerations, generating characteristics and regulatory framework will be a challenge to incorporate, particularly given the broad context and practical constraints of an integrated planning document. However, to overlook the "hydro specific" issues outlined below would miss the important, and given SB 1389, *singular* opportunity to comprehensively assess and address energy and resource trends in California in an integrated manner.

CHRC has applauded the Commission for promoting the reconfiguration or replacement of older, less efficient, and more polluting power plants for economic and environmental purposes. However, the scope and focus of many of the Commission's environmental discussions, including those in the staff report under this docket, is limited to fossil plants and air quality.

Based on a number of policy statements[1] and evidence[2] from various state agencies – including specific findings by this Commission in 2001[3] – we strongly recommend that the Commission include the state's aging hydroelectric infrastructure in its analysis of generation plants where reconfiguration or retirement is likely to occur. We would be pleased to assist CEC staff in obtaining the records of the cited (and other) proceedings to support this work.

Roughly 80% of California's hydroelectric resources are licensed by the Federal Energy Regulatory Commission, and just under half of the state's hydro capacity (5904 MW) is scheduled to be relicensed by FERC in the next 10 years. These facilities' expiring licenses were issued 30 to 50 years ago, prior to the passage of most environmental statutes, and as a result they provide few if any measures to protect the affected environment. The renewed FERC licenses must for the first time incorporate protection, mitigation, and enhancement measures necessary to comply with state water quality standards and the Clean Water Act, the National Environmental Protection Act, and the Endangered Species Act. Additionally, the new licenses must provide for fish passage and protection of federal lands, where required.

The electricity capacity and reliability impacts of relicensing are the subject of some controversy. FERC has estimated these measures have reduced annual generation by an average of 1.6% at recently relicensed projects.[4] The National Hydropower Association, an industry trade group, has cited 8-10% reductions in output. Neither of these figures captures the effect of measures that limit a project's peaking capability, which can be especially damaging to the environment. Because that the State of California has demonstrated its intent to pursue environmental protection and enhancement measures at hydro facilities, this Commission should project for future changes in hydro capacity and proceed with proactive efforts to replace any lost power and peaking capability with conservation measures and/or less harmful technologies.

Another hydro-specific factor affecting the IEPR's supply forecasts is the potential decommissioning and removal of hydropower dams. Many older dams can no longer provide the function for which they were built. Even when an older dam is still functioning, the benefits

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[1] *See* California Resources Agency and California Environmental Protection Agency, *California's Response to the Federal Energy Regulatory Commission Staff Report on the Hydroelectric Licensing Policies, Procedures, and Regulations – Comprehensive Review and Recommendations Pursuant to Section 603 of the Energy Act of 2000 – May 2001,* October, 2001 (stating California's intent to improve water quality and environmental conditions at hydropower facilities).

[2] *See* California Public Utilities Commission, *Draft Environmental Impact Report on Pacific Gas and Electric Company's Application for Authorization to Divest its Hydroelectric Generating Facilities and Assets, Application No. A.99-09-053,* November, 2000 (finding that PG&E's hydropower system results in widespread and ongoing impacts to water quality, instream flows, and fisheries); *see also* UC Davis, *Sierra Nevada Ecosystem Project,* 1996 (concluding aquatic and riparian ecosystems are the most altered habitats in the Sierra Nevada range, and that dams and diversions are a primary cause of their degradation); California State Lands Commission, *California Rivers: A Public Trust Report,* 1993 (determining that dams have blocked or eliminated over 95 percent of the historic salmon and steelhead spawning habitat in Central Valley river systems).

[3] California Energy Commission, *Environmental Performance Report of California's Electric Generation Facilities: A Report to the State Legislature,* June, 2001. Using incomplete and partial data, the report concludes that California's hydropower facilities disrupt or destroy roughly seven times the acreage affected by nuclear, coal, oil and gas facilities combined. The report links hydro development to the decline of water quality, fish species, and aquatic and riparian habitats across the state.

[4] Federal Energy Regulatory Commission, *FERC Staff Report on the Hydroelectric Licensing Policies, Procedures, and Regulations – Comprehensive Review and Recommendations Pursuant to Section 603 of the Energy Act of 2000,* May 2001

it provides may be less than the cost of operating and maintaining the structure. In addition, legal mandates to assure fish passage, provide downstream flows for healthy fisheries, or to reduce impacts on newly listed endangered species may cost more than a facility's electricity revenues.

Dams block the majority of spawning habitat historically used by salmon and steelhead in California's Central Valley as well as coastal streams and rivers. These structures have contributed significantly to the decline of virtually every major anadromous fish species in the state, and scientists increasingly believe that selective dam removal may be the most cost effective action to promote recovery. For example,

CalFed is studying fish passage at Englebright Dam on the Yuba River, which generates approximately 60 MW of power, but blocks salmonids from their native habitat upstream. If Englebright were to be removed, up to 100 miles of spawning habitat will be available for endangered salmon and steelhead.

Pacific Gas and Electric Company is currently working with CalFed, local landowners, and interested parties to remove 4 hydropower dams on Battle Creek - dams which are currently blocking endangered salmonids from their native spawning grounds. Battle Creek is widely assumed to be the greatest possible opportunity in California for the restoration of the Spring-Run Chinook salmon.

State and federal agencies are spending millions on dam removal studies or projects on the Ventura River, Butte Creek, Alameda Creek, the lower Yuba River, the Carmel River, Malibu Creek and many other sensitive rivers in California. It is likely that, with a thorough analysis by this Commission and an explicit planning process to make up for lost generation, additional restoration opportunities could be pursued.

CHRC supports the Commission in its effort to provide policy makers and planners with integrated energy supply and policy recommendations. We urge the Commission to account for the changes in electricity supply as the state acts to phase out and replace the state's most damaging hydroelectric facilities and operational practices in the coming years. Such a program would not only support and advance the legal mandates and stated policy objectives of the Commission's sister agencies within the Resources Agency and at Cal EPA, it would more completely realize the stated goals of SB 1389, to provide comprehensive, integrated analysis and policy direction.

Thank you for considering these comments, and don't hesitate to contact me at (510) 528-4164 or Steve Wald, CHRC Director at (510) 644-2900 x105 should you have any questions.

Sincerely,

/s/

Charlton H. Bonham, CHRC Chair
On behalf of
California Hydropower Reform Coalition